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**Avian Infectious Bronchitis
Virus**

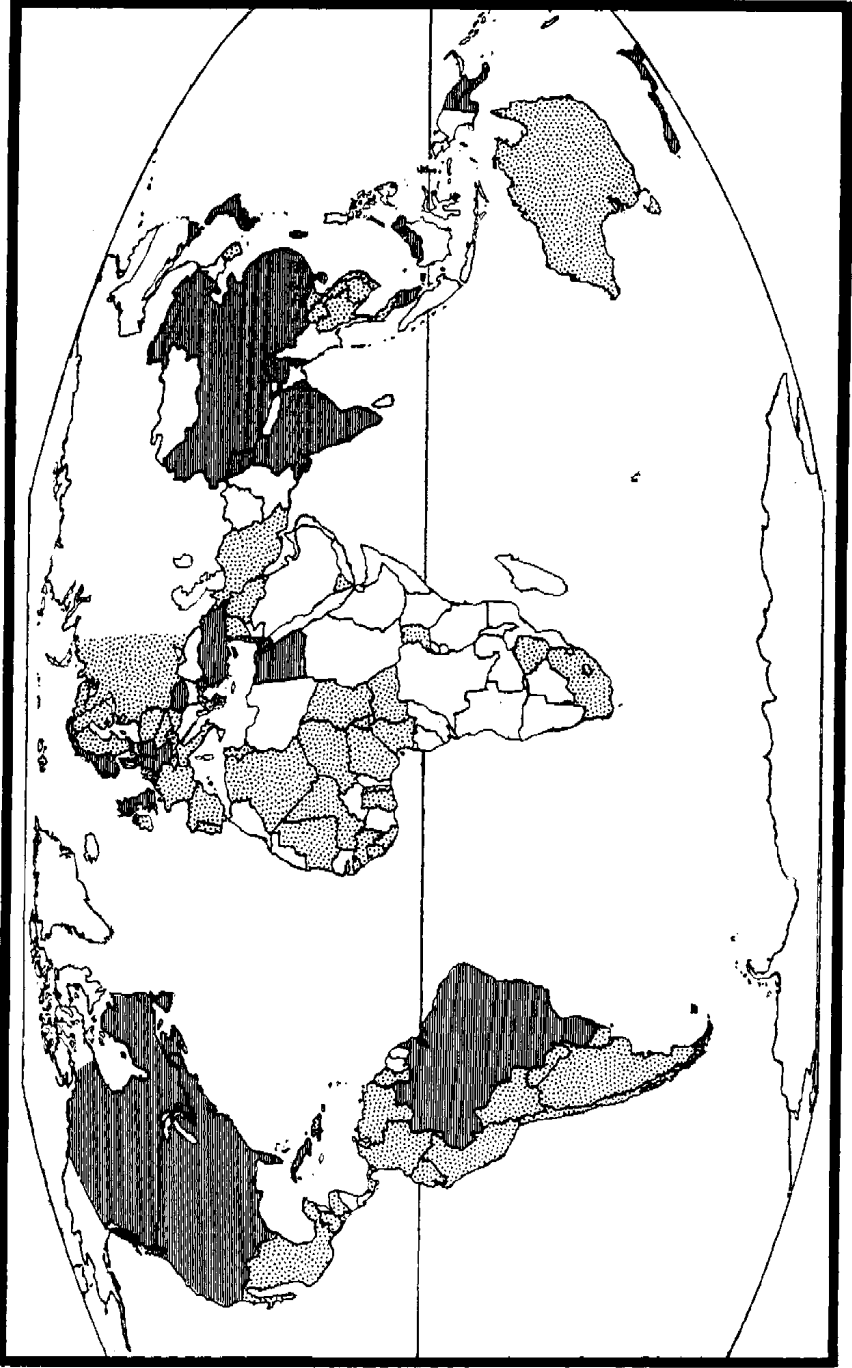


Fig. 8. Avian infectious bronchitis virus. Shaded areas = Documented. Stippled areas = Either 1979 or 1980 AHY.

Avian Infectious Bronchitis Virus

- A. Classification and description:** Family, Coronaviridae; genus, *Coronavirus*; species, Avian infectious bronchitis virus (types 1 to 10 and possibly more). Causes acute contagious respiratory illness and includes reproductive tissue disease (i.e., egg shell problems and egg production losses) in chickens.
- B. Hosts:** Chickens only.
- C. Areas free of the virus:** No areas are known to be free and it is thought to have a worldwide distribution.
- D. Key developments:** The disease was first reported in the United States (11). Vaccines were developed in the 1950s and the economic impact diminished.
- E. Historical movement:** Not documented.
- F. Diagnostic techniques:** VN (5–7,13,15), AGID (8), FA (3), CF (5), HA (1,2,4), HI (1,2,10,14), and ELISA (9,10,12) have all been reported. For the most sensitive methods to serotype the virus see Refs. (6,7).
- G. Diagnostic reagents:** See Section F.
- H. Map credits:** Current literature.
- I. Key references**
1. Alexander, D. J., and Chettle, N. J. (1977). *Avian Pathol.* **6**, 9–17.
 2. Bahl, A. E. *et al.* (1977). *Proc. 20th Annu. Meet. Am. Assoc. Vet. Lab. Diagn.* pp. 225–236.
 3. Braune, M. O., and Gentry, R. F. (1965). *Avian Dis.* **9**, 535–545.
 4. Brown, W. E. *et al.* (1962). *Avian Dis.* **6**, 99–106.
 5. Brumfield, H. P., and Pomeroy, B. S. (1957). *Proc. Soc. Exp. Biol. Med.* **94**, 146–149.
 6. Hopkins, S. R. (1978). *Avian Dis.* **22**, 71–81.
 7. Johnson, R. B. *et al.* (1969). *Avian Dis.* **13**, 632–635.
 8. Lohr, J. E. (1981). *Avian Dis.* **25**, 1058–1064.
 9. Marquardt, W. W. *et al.* (1981). *Avian Dis.* **25**, 713–722.
 10. Mockett, A. P. A., and Darbyshire, J. H. (1981). *Avian Pathol.* **10**, 1–10.
 11. Schalk, A. F., and Hawn, M. C. (1931). *J. Am. Vet. Med. Assoc.* **78**, 413–423.
 12. Soula, A., and Moreau, Y. (1981). *Arch. Virol.* **67**, 283–295.
 13. Stinski, M. F., and Cunningham, C. H. (1969). *J. Immunol.* **102**, 720–727.
 14. Timms, L. M. *et al.* (1980). *Br. Vet. J.* **136**, 349–356.
 15. Wooley, R. E. *et al.* (1976). *J. Clin. Microbiol.* **3**, 149–156.
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